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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,951	03/27/2001	Toshihito Yanashima	010284	5245

23850 7590 02/27/2003

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EXAMINER

LAM, THANH

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 02/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.  
09/812,951

Applicant(s)  
Yanashima et al.

Examiner  
Thanh Lam

Art Unit  
2834



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on RCE 1/15/2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-11, and 13-15 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-11, and 13-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

Art Unit: 2834

### DETAILED ACTION

1. The request filed on 1/15/2003 for a RCE under 37 CFR 1.53(d) based on parent Application No. 09/812,951 is acceptable and a RCE has been established. An action on the RCE follows.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zigler in view of Steen.

Art Unit: 2834

Zigler discloses a sealed motor compressor comprising, in a sealed container, a compressing element and an electromotive element for driving the compressing element, wherein said electromotive element is fixed to said sealed container and comprises a stator (22) provided with a stator winding (11) and a rotor (21) which rotates in the stator, and said rotor comprises a squirrel-cage secondary conductor disposed in a peripheral portion of a rotor yoke.

Steen discloses a rotor (13) and rare earth permanent magnet (27-30) embedded in the rotor yoke.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the rotor of Zigler with the rotor as taught by Steen to improve the field excitation of the motor.

Regarding claim 2, the proposal in combination of Zigler and Steen disclose the electromotive element comprises a single-phase bipolar constitution.

Regarding claim 3, the proposal in combination of Zigler and Steen disclose the electromotive element is started by a system in which a startup capacitor (16) is used.

Regarding claim 4, the proposal in combination of Zigler and Steen disclose the stator winding comprises a main winding and an auxiliary winding, and a winding ratio of the respective windings by effective winding number calculation is set to be in a range of  $1.0 \pm 0.5$ .

Regarding claim 5, the proposal in combination of Zigler and Steen disclose the squirrel-cage secondary conductor of the rotor comprises a skewed structure.

Art Unit: 2834

Regarding claim 7, the proposal in combination of Zigler and Mikulic disclose the number of the rare earth permanent magnets embedded in the rotor yoke is any number selected from the group consisting of two, four, six and eight.

Regarding claim 8, the proposal in combination of Zigler and Mikulic disclose current-sensitive protection means for detecting a line current.

Regarding claim 9, Zigler disclose, a compressing element and an electromotive element for driving the compressing element, said electromotive element being driven by a three-phase power source, wherein said electromotive element is fixed to said sealed container and comprises a stator (22) provided with a stator winding (11) and a rotor (21) which rotates in the stator.

Steen discloses a rotor (13) comprises a squirrel-cage secondary conductor disposed in a peripheral portion of a rotor yoke a permanent magnets embedded rotor and rare earth permanent magnets (27-30) embedded in the rotor yoke.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the rotor of Zigler with the rotor as taught by Steen to improve the field excitation of the motor.

Regarding claim 10, the proposal in combination of Zigler and Steen disclose the electromotive element comprises a three-phase bipolar constitution.

Regarding claim 11, the proposal in combination of Zigler and Steen disclose the squirrel-cage secondary conductor of the rotor comprises a skewed structure, and a skew pitch is set to more than 0, and 1.5 slot pitches or less.

Art Unit: 2834

Regarding claim 13, the proposal in combination of Zigler and Steen disclose the number of rare earth permanent magnets embedded in the rotor yoke is an even number.

Regarding claim 14, the proposal in combination of Zigler and Steen disclose current-sensitive protection means for detecting line current.

Regarding claim 15, the proposal in combination of Zigler and Steen disclose capability control is possible.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh Lam whose telephone number is (703) 308-7626. The fax phone number for this Group is (703) 305-3432.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0656.



Thanh Lam

Patent Examiner